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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,087	06/08/2006	Seiji Sato	2006_0812A	4771
513 7590 10/03/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021				
EXAMINER MOMPER, ANNA M				
ART UNIT		PAPER NUMBER		
4165				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/582,087

**Applicant(s)**

SATO ET AL.

**Examiner**

ANNA MOMPER

**Art Unit**

4165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date 6/08/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following correspondence is a first office action on the merits. Preliminary amendment received 6/08/06 has been entered. Claims 5 and 6 have been amended. Claims 7-12 have been added. Claims 1-12 are currently pending and have been considered below.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 4, 6-7, 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "excellent" in claims 6 and 10-11 is a relative term which renders the claim indefinite. The term "excellent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 2 and 4 recite the claim limitation "its side". The term "its" is indefinite as it is unclear as to what aspect of the invention "its" is attempting to reference.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Poiret et al. (US 2002/0094894 A1).

As per claim 1, Poiret et al. discloses a chain tensioner ([0037] Ln. 2) comprising a housing (1) formed with a cylinder chamber (4), a plunger (5) slidably mounted in said cylinder chamber ([0038] Ln. 1-3), a spring (12) mounted in said cylinder chamber and biasing said plunger outwardly of said cylinder chamber ([0041]), and a retraction restrictor means (16) provided between said housing and said plunger (Fig. 3) for preventing said plunger from retracting toward a closed end of said cylinder chamber over a predetermined distance ([0047], Ln. 22-33), said housing being formed with an oil supply passage (8) communicating with a pressure chamber (7) defined in said cylinder chamber behind said plunger ([0039], Fig. 3), whereby pushing force applied to said plunger is dampened by hydraulic oil supplied through said oil supply passage into said pressure chamber ([0048]), characterized in that a ring fitting groove (14) is formed in an outer periphery of said plunger at its portion near a rear end thereof which is located inside said cylinder chamber ([0042] Ln. 4-6, Fig. 3), that a radially elastically deformable elastic ring (16) is received in said ring fitting groove in a radially compressed state ([0047] Ln. 16-18), and that an engaging groove (23, 25) is formed in an inner periphery of said cylinder chamber near an open end thereof ([0045] Ln. 1-8, Fig. 3), said elastic ring ([0043] Ln. 5-12, [0044] Ln. 6-7) being engagable in said engaging groove and being configured to radially expand in said engaging groove to such an extent that an inner diameter thereof is smaller than an outer diameter of said plunger ([0047] Ln. 13-22, [0049], Fig. 8).

As per claim 2, Poiret et al. also discloses the engaging groove (23, 25) has a tapered surface on its side near said closed end of said cylinder chamber (Fig. 3).

As per claim 3, Poiret et al. discloses a chain tensioner ([0037] Ln. 2) comprising a housing (1) formed with a cylinder chamber (4), a plunger (5) slidably mounted in said cylinder chamber ([0038] Ln. 1-3), a spring (12) mounted in said cylinder chamber and biasing said plunger outwardly of said cylinder chamber ([0041]), and a retraction restrictor means (16) provided between said housing and said plunger (Fig. 3) for preventing said plunger from retracting toward a closed end of said cylinder chamber over a predetermined distance ([0047], Ln. 22-33), said housing being formed with an oil supply passage (8) communicating with a pressure chamber (7) defined in said cylinder chamber behind said plunger ([0039], Fig. 3), whereby pushing force applied to said plunger is dampened by hydraulic oil supplied through said oil supply passage into said pressure chamber ([0048]), characterized in that a ring fitting groove (23, 25) is formed in an inner periphery of said cylinder chamber near an open end thereof ([0045] Ln. 1-5, Fig. 3), that a radially elastically deformable elastic ring (15) is received in said ring fitting groove in a radially expanded state ([0047] Ln. 1-6), and that an engaging groove (14) is formed in an outer periphery of said plunger near a rear end thereof ([0042] Ln. 4-6, Fig. 3), said elastic ring ([0043] Ln. 5-12) being engagable in said engaging groove and being configured to be radially compressed in said engaging groove to such an extent that an outer diameter thereof is larger than an inner diameter of said cylinder chamber ([0046] Ln. 3-8, Ln. 18-22, Fig. 3).

As per claim 4, Poiret et al. also discloses the engaging groove (14) has a tapered surface on its side near a front end of said plunger (Fig. 3).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poiret et al. in view of Kuznets et al. (US 5,700,214).

As per claims 5 and 7-9, Poiret et al. also discloses the elastic ring (elastic ring 16 with regards to claims 5 and 7, and elastic ring 15 with regards to claims 8 and 9) is formed of a steel wire ([0043] Ln. 10-12, [0044] Ln. 6-7).

Poiret et al. fails to explicitly disclose the ring being a C-shaped member and having two separate ends and a circular cross section.

Kuznets et al. discloses a hydraulic tensioner (10) in which a retainer ring (86) has a circular cross section (Fig. 3, Fig. 3B) and is a C-shaped member with two separate ends (Fig. 3A).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the chain tensioner of Poiret et al. to include the retainer ring being a C-shaped member and a circular cross section, as taught by Kuznets et al., for the purpose of allowing for thermal expansion.

8. Claims 6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poiret et al.

As per claims 6 and 10-12, Poiret et al. also discloses the elastic ring (elastic ring 16 with regards to claims 6 and 10, and elastic ring 15 with regards to claims 11 and 12) is made of plastic ([0043] Ln. 10-12, [0044] Ln. 6-7).

Poiret et al. fails to explicitly disclose the ring being made of a resin. It would have been obvious to one of ordinary skill in the art at the time the invention to modify the chain tensioner of Poiret et al. to include the elastic ring being made of resin, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNA MOMPER whose telephone number is (571)270-5788. The examiner can normally be reached on M-F 6:00-3:30 (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on (571) 272-6782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley T King/  
Primary Examiner, Art Unit 3683

am